
**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**
Washington, D.C. 20549

**POST-EFFECTIVE AMENDMENT NO. 1
TO
FORM S-3
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933**

ADVANCED EMISSIONS SOLUTIONS, INC.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

27-5472457
(I.R.S. Employer
Identification No.)

**9135 South Ridgeline Boulevard
Suite 200
Highlands Ranch, Colorado 80129
(303) 734-1727**

(Address, Including Zip Code, and Telephone Number, Including Area Code, of Registrants' Principal Executive Offices)

**Mark H. McKinnies
9135 South Ridgeline Boulevard, Suite 200, Highlands Ranch, Colorado 80129
(303) 734-1727**

(Address, Including Zip Code, and Telephone Number, Including Area Code, of Registrants' Agent for Service)

With Copies to:

**Julie A. Herzog, Esq.
Kip Wallen, Esq.
Fortis Law Partners LLC
1900 Wazee Street, Suite 300
Denver, Colorado 80202
(303) 295-9700**

Approximate date of commencement of proposed sale to the public: From time to time or at one time after the effective date of this registration statement.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box.

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box.

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box.

Indicate by check mark whether Registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange

Act.

Large accelerated filer

Accelerated filer

Non-accelerated filer (Do not check if a smaller reporting company)

Smaller reporting company

CALCULATION OF REGISTRATION FEE

Title of each Class of Securities to be Registered	Amount to be Registered(1)	Proposed Maximum Aggregate Offering Price(1)	Amount of Registration Fee (1)(2)(3)
Common Stock, no par value			
Preferred Stock, no par value			
Warrants			
Units			
Total	—	\$140,000,000	\$16,254.00

- (1) An indeterminate aggregate amount of each identified class of securities to be offered at indeterminate prices has been registered pursuant to the Registration Statement of ADA-ES, Inc. on Form S-3 filed with the Securities and Exchange Commission on January 28, 2011 (File No. 333-171936) (the "Registration Statement"), which shall have an aggregate initial offering price not to exceed \$140,000,000. Separate consideration may or may not be received for securities that are issuable upon conversion of, or in exchange for, or upon exercise of, convertible or exchangeable securities. Any securities registered under the Registration Statement may be sold separately or as units with other securities registered thereunder. The proposed maximum offering price per unit will be determined from time to time by the registrant in connection with, and at the time of, the issuance of the securities. The securities registered include such indeterminate amount and number of shares of common stock and preferred stock that may be issued upon conversion of or exchange for preferred stock that provide for conversion or exchange, upon exercise of warrants or pursuant to the antidilution provisions of such securities. In addition, pursuant to Rule 416 under the Securities Act, the shares registered under the Registration Statement include such indeterminate number of shares of common stock and preferred stock as may be issuable with respect to the shares being registered as a result of stock splits, stock dividends or similar transactions.
- (2) Calculated pursuant to Rule 457(o) under the Securities Act.
- (3) The registration fee of \$16,254.00 was previously paid with the initial filing of the Registration Statement on January 28, 2011. The registration fee was calculated at the then-statutory rate of \$116.10 per \$1,000,000 of securities registered. This Post-Effective Amendment No. 1 does not register any additional amount of securities.

The registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment which specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933, as amended, or until the registration statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.

EXPLANATORY NOTE

On July 1, 2013, ADA-ES, Inc., a Colorado corporation (the “Predecessor Registrant” or “ADA”), merged with ADA Merger Corp., a Colorado corporation and wholly owned subsidiary of Advanced Emissions Solutions, Inc., a Delaware corporation (the “Registrant” or “ADES”), pursuant to an Agreement and Plan of Merger, dated as of March 25, 2013 (the “Reorganization Agreement”), whereby the Predecessor Registrant, as the surviving corporation of the merger, became a wholly owned subsidiary of the Registrant (such transaction, the “Reorganization”). The Reorganization was adopted and recommended to shareholders by the Board of Directors of the Predecessor Registrant on February 6, 2013 and approved by shareholders of the Predecessor Registrant at the Annual Meeting of Shareholders held on June 13, 2013. At the effective time of the Reorganization, each outstanding share of common stock of the Predecessor Registrant was converted into one share of common stock of the Registrant, and the Registrant replaced the Predecessor Registrant as the publicly held company. The issuance of the shares of common stock of the Registrant was registered under the Securities Act of 1933, as amended (the “Securities Act”) pursuant to the Registrant’s Registration Statement on Form S-4, which was declared effective by the Securities and Exchange Commission (the “SEC”) on April 23, 2013 (File No. 333-187505). As with shares of common stock of the Predecessor Registrant prior to the Reorganization, shares of common stock of the Registrant trade on the NASDAQ Capital Market under the symbol “ADES.”

The Reorganization resulted in the creation of a holding company structure with the Registrant as the holding company and the Predecessor Registrant as an operating company. The business, operations, assets and liabilities of the Predecessor Registrant after the Reorganization are substantially the same as they were prior to Reorganization except for certain equity plans that were assumed by the Registrant pursuant to the Reorganization Agreement.

The Predecessor Registrant filed a Registration Statement on Form S-3 with the SEC on January 28, 2011 (File No. 333-171936) (the “Registration Statement”). The Registration Statement provides for the offering by the Predecessor Registrant from time to time pursuant to Rule 415 under the Securities Act of any combination of the Predecessor Registrant’s common stock, preferred stock, warrants to purchase its common stock and units of any of the foregoing in one or more offerings of up an aggregate initial offering price of \$140,000,000. On March 15, 2012, the SEC issued correspondence to the Predecessor Registrant stating that it would not object to the Registrant, as successor to the Predecessor Registrant, making ongoing offerings of securities under the Registration Statement provided that the Registrant adopts the Registration Statement by filing a post-effective amendment. Pursuant to Rule 414 under the Securities Act, the Registrant files this Post-Effective Amendment No. 1 to the Registration Statement to expressly adopt the Registration Statement as its own for all purposes of the Securities Act and the Securities Exchange Act of 1934, as amended.

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The information in this preliminary prospectus is not complete and may be changed. These securities may not be sold until the registration statement filed with the Securities and Exchange Commission is effective. This preliminary prospectus is not an offer to sell nor does it seek an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED JULY 3, 2013

PROSPECTUS

ADVANCED EMISSIONS SOLUTIONS, INC.

**\$140,000,000
COMMON STOCK
PREFERRED STOCK
WARRANTS
UNITS**

We may offer and sell the securities listed above from time to time in one or more offerings. We will provide specific terms of any offering in supplements to this prospectus. The preferred stock, warrants and units may be convertible into or exercisable or exchangeable for our common stock or our preferred stock. The securities may be offered separately or together in any combination and as separate series. You should carefully read this prospectus and any accompanying prospectus supplement, together with the documents we incorporate by reference, before you invest in any of our securities.

We will specify in any accompanying prospectus supplement the terms of any offering. The prospectus supplement may also update or change the information set forth in this prospectus. The applicable prospectus supplement will contain information, where applicable, as to other listings, if any, on the NASDAQ Capital Market or any securities exchange of the securities covered by the prospectus supplement.

Our common stock is traded on the NASDAQ Capital Market under the trading symbol "ADES." On July 1, 2013, the last reported sales price for ADA common stock was \$41.00 per share. As of July 1, 2013, the aggregate market value of ADA outstanding common stock held by non-affiliates, or the public float, was approximately \$373,145,428, which was calculated based on 9,101,108 shares of outstanding common stock held by non-affiliates and a last sale closing price per share of \$41.00 on that date.

INVESTING IN OUR SECURITIES INVOLVES A HIGH DEGREE OF RISK. SEE THE SECTION ENTITLED " [RISK FACTORS](#) " BEGINNING ON PAGE 3 OF THIS PROSPECTUS. THIS PROSPECTUS MAY NOT BE USED TO OFFER OR SELL ANY SECURITIES UNLESS ACCOMPANIED BY A PROSPECTUS SUPPLEMENT.

We may sell the securities directly to investors, through agents designated from time to time or to or through underwriters or dealers or through a combination of these methods. For additional information on the methods of sale, you should refer to the section entitled "Plan of Distribution." If any underwriters are involved in the sale of any securities with respect to which this prospectus is being delivered, the names of such underwriters and any applicable commissions or discounts will be set forth in a prospectus supplement. The net proceeds we expect to receive from such sale will also be set forth in a prospectus supplement.

NEITHER THE SECURITIES AND EXCHANGE COMMISSION NOR ANY STATE SECURITIES COMMISSION HAS APPROVED OR DISAPPROVED THESE SECURITIES OR DETERMINED IF THIS PROSPECTUS IS TRUTHFUL OR COMPLETE. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

The date of this Prospectus is , 2013

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ABOUT THIS PROSPECTUS

This prospectus is part of a “shelf” registration statement that we have filed with the Securities and Exchange Commission (the “SEC”). By using a shelf registration statement, we may sell, at any time and from time to time, in one or more offerings, any combination of the securities described in this prospectus. The exhibits to our registration statement contain the full text of certain contracts and other important documents we have summarized in this prospectus. Since these summaries may not contain all the information that you may find important in deciding whether to purchase the securities we offer, you should review the full text of these documents. The registration statement and the exhibits can be obtained from the SEC as indicated under the heading “Where You Can Find More Information.”

This prospectus only provides you with a general description of the securities we may offer. Each time we sell securities, we will provide a prospectus supplement that contains specific information about the terms of those securities. The prospectus supplement may also add, update or change information contained in this prospectus. You should read both this prospectus and any prospectus supplement together with the additional information described below under the heading “Where You Can Find More Information.”

You should rely only on the information contained or incorporated by reference in this prospectus. We have not authorized anyone to provide you with different information. No person has been authorized to give any information or make any representations other than the information and those representations contained or incorporated by reference in this prospectus. You should not assume that the information provided by this prospectus or the documents incorporated by reference herein is accurate as of any date other than the date of this prospectus or the incorporated documents, regardless of the date you receive them.

We are not making an offer of these securities in any jurisdiction where the offer is not permitted. You should not assume that the information in this prospectus or a prospectus supplement is accurate as of any date other than the date on the front of the document.

Unless the context otherwise requires, references in this prospectus to “ADES,” “we,” “us” and “our” refer to Advanced Emissions Solutions, Inc. and our consolidated subsidiaries.

OVERVIEW

Advanced Emissions Solutions, Inc., a Delaware corporation incorporated in 2011, is the publicly held holding company for the operating companies ADA-ES, Inc. (“ADA”) and BCSI, LLC (“BCSI”). Incorporated in Colorado in 1997, ADA is a leader in clean coal technology and the associated specialty chemicals, serving the U.S. and Canadian coal-fueled power plant industry. ADA’s proprietary environmental technologies and specialty chemicals enable power plants to enhance existing air pollution control equipment, minimize mercury, CO₂ and

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other emissions, maximize capacity, and improve operating efficiencies, to meet the challenges of existing and pending emission control regulations. ADA-ES became a “stand-alone” public company through a “spin-off” from its previous parent company, Earth Sciences, Inc. in September 2003 and became a wholly owned subsidiary of ADES by virtue of a reorganization on July 1, 2013. ADA’s approach to technology development, implementation and commercialization involves taking technology to full-scale as quickly as we can, and testing and improving the technology under actual power plant operating conditions. The most significant benefit of this method is that we begin working early and closely with power companies to optimize the technology to meet their specific needs. For example, while some other companies develop mercury control technologies in the isolation of a laboratory without feedback from users, we work on full-scale mercury control systems that are installed on plants operated by several of the largest power companies in the United States and Canada. We assist electric utility companies to remain competitive while meeting environmental regulations.

Our major activities include:

- the development and marketing of our patented refined coal technology, CyClean, for control of NO_x and mercury, which also qualifies for certain tax credits, through Clean Coal Solutions, LLC (“Clean Coal”), ADA’s joint venture with NexGen Refined Coal, LLC, an affiliate of NexGen Resources Corporation, and GSFS Investments I Corp., an affiliate of The Goldman Sachs Group, Inc.
- the development and marketing of ADA’s patent pending M-45™ and M-45-PC™ technologies for Circulating Fluidized Boilers and Pulverized Coal boilers, respectively, which also qualifies for certain tax credits, and which complements and expands ADA’s market for RC beyond the CyClean technology, which is limited to cyclone boilers,
- the sale of equipment, field testing and services related to emission control (“EC”) including mercury for coal-fired boilers used in electric generation,
- under an exclusive development and licensing agreement with Arch Coal, Inc. (“Arch Coal”), development and commercialization of an enhanced Powder River Basin (“PRB”) coal with reduced emissions of mercury and other metals,
- the research and development of carbon dioxide (“CO₂”) capture technology through contracts supported by the Department of Energy (“DOE”) and industry participants, and
- the sale of flue gas conditioning equipment and chemicals, and other chemicals and technologies for coal-fired boilers.

BCSI is a custom designer and fabricator of engineered emissions control technologies, bulk material handling equipment, bulk storage systems, water/waste water treatment equipment, and custom components. BCSI’s technical solutions serve a wide range of industrial clients including; coal fired utilities, water treatment, waste water, cement kilns, food processing and industrial boilers.

General Information

The address of our principal executive office is 9135 South Ridgeline Boulevard, Suite 200, Highlands Ranch, Colorado 80129, and our telephone number is (303) 734-1727.

RISK FACTORS

You should carefully consider the specific risks set forth under the caption “Risk Factors” in the applicable prospectus supplement and in ADA’s Annual Report on Form 10-K for the year ended December 31, 2012, and Part II Item 1A of ADA’s Quarterly Report on Form 10-Q for the quarter ended March 31, 2013, filed with the SEC by ADA (File No. 000-50216), as well as any amendments thereto reflected in subsequent filings with the SEC, and in any of our other filings with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended (the “Exchange Act”) that are incorporated by reference herein, before making an investment decision. For more information, see “Information Incorporated by Reference” below.

FORWARD-LOOKING INFORMATION

This prospectus includes and incorporates forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of

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1934, as amended (the “Exchange Act”). All statements, other than statements of historical facts, included or incorporated in this prospectus regarding our strategy, future operations, financial position, future revenues, projected costs, prospects, plans and objectives of management are forward-looking statements. The words “anticipates,” “believes,” “estimates,” “expects,” “intends,” “may,” “plans,” “projects,” “will,” and “would,” the negative expressions of such statements, and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. Forward-looking statements included or incorporated in this prospectus include, without limitation, statements regarding the following:

- (a) the scope and impact of mercury and other regulations or pollution control requirements, including the impact of the final Mercury and Air Toxics Standards (“MATS”);
- (b) expected growth in and potential size of our target markets;
- (c) expected supply and demand for our products and services;
- (d) the effectiveness of our technologies and the benefits they provide;
- (e) the timing of awards of, and work under, our contracts and agreements and their value and their availability;
- (f) expected production levels at our refined coal (“RC”) facilities, when those RC facilities will be placed into continuous operation, the expected use of the tax credits under Section 45 of the Internal Revenue Code (“Section 45 tax credits”) generated by the RC facilities and the expected future value of Section 45 tax credits;
- (g) our ability to profitably sell, lease and/or recognize the tax benefits from operating additional RC facilities;
- (h) timing and amounts of or changes in future revenues, funding for our business and projects, margins, expenses, earnings, tax rate, cash flow, working capital, liquidity and other financial and accounting measures;
- (i) the materiality of any future adjustments to previously recorded revenue as a result of Department of Energy (“DOE”) audits and the amount of contributions from the DOE and others towards project demonstrations;
- (j) the ability of third parties to which we lease or sell RC facilities to obtain any requested Private Letter Rulings (“PLRs”) from the Internal Revenue Service (“IRS”); and
- (k) whether any legal challenges or Environmental Protection Agency (“EPA”) actions will have a material impact on the implementation of the MATS or other regulations.

We cannot guarantee that we actually will achieve the plans, intentions or expectations disclosed in our forward-looking statements and you should not place undue reliance on our forward-looking statements. Actual results or events could differ materially from the plans, intentions and expectations disclosed in the forward-looking statements we make. We have included important factors in the cautionary statements included or incorporated in this prospectus, particularly under the heading “Risk Factors” in ADA’s Annual Report on Form 10-K for the fiscal year ended December 31, 2012, as well as under the heading “Quantitative and Qualitative Disclosures About Market Risk” in such Form 10-K, under the heading “Risk Factors” in Part II Item 1A of ADA’s Form 10-Q for the quarter ended March 31, 2013, and in other reports we file with the SEC which are incorporated by reference herein that we believe could cause actual results or events to differ materially from the forward-looking statements that we make. Our forward-looking statements do not reflect the potential impact of any future acquisitions, mergers, dispositions, joint ventures or investments we may make. Any such forward-looking statements represent management’s views as of the date of the document in which such forward-looking statement is contained. While we may elect to update such forward-looking statements at some point in the future, we disclaim any obligation to do so, even if subsequent events cause our views to change, unless otherwise required by law.

THE SECURITIES WE MAY OFFER

We may offer shares of our common stock and preferred stock and warrants to purchase any of such securities as well as units consisting of one or more of these securities, with a total value of up to \$140,000,000 from time to time under this prospectus at prices and on terms to be determined by market conditions at the time of offering, and subject to any requirements or restrictions imposed on us under our listing agreement with the NASDAQ Capital Market or any other exchange on which our securities may be listed at the time. This prospectus provides you with a general description of the securities we may offer. Each time we offer a type or series of securities, we will provide a

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prospectus supplement that will describe the specific amounts, prices and other important terms of the securities, including, to the extent applicable:

- designation or classification;
- aggregate principal amount or aggregate offering price;
- maturity, if applicable;
- rates and times of payment of dividends, if any;
- redemption or conversion terms, if any;
- voting or other rights, if any;
- conversion prices, if any; and
- important federal income tax considerations.

The prospectus supplement also may add, update or change information contained in this prospectus or in documents we have incorporated by reference. However, no prospectus supplement will offer a security that is not registered and described in this prospectus at the time of its effectiveness.

We may sell the securities directly to or through agents, underwriters or dealers. We, and our agents or underwriters, reserve the right to accept or reject all or part of any proposed purchase of securities. If we do offer securities through agents or underwriters, we will include in the applicable prospectus supplement:

- the names of those agents or underwriters;
- applicable fees, discounts and commissions to be paid to them; and
- the net proceeds to us.

Common Stock. We may issue shares of our common stock from time to time. Holders of common stock are entitled to one vote per share on all matters submitted to a vote of stockholders. Subject to any preferences of outstanding shares of preferred stock, holders of common stock are entitled to dividends when and if declared by our board of directors.

Preferred Stock. We may issue shares of our preferred stock from time to time, in one or more series. Our board of directors will determine the rights, preferences, privileges and restrictions of the preferred stock, including dividend rights, conversion rights, voting rights, terms of redemption, liquidation preferences, sinking fund terms and the number of shares constituting any series or the designation of any series. Convertible preferred stock will be convertible into our common stock or exchangeable for our other securities. Conversion may be mandatory or at your option and would be at prescribed conversion rates.

Warrants. We may issue warrants for the purchase of common stock and preferred stock in one or more series. We may issue warrants independently or together with common stock and preferred stock, and the warrants may be attached to or separate from these securities. The warrants will be evidenced by warrant certificates issued under one or more warrant agreements, which are contracts between us and an agent for the holders of the warrants. In this prospectus, we have summarized certain general features of the warrants. We will incorporate by reference into the registration statement of which this prospectus is a part the form of warrant agreement, including a form of warrant certificate, that describes the terms of the series of warrants we are offering before the issuance of the related series of warrants. We urge you to read the prospectus supplements related to the series of warrants being offered, as well as the complete warrant agreements and warrant certificates that contain the terms of the applicable series of warrants.

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Units. We may issue units consisting of common stock, preferred stock and warrants for the purchase of common stock and preferred stock in one or more series. In this prospectus, we have summarized certain general features of the units. We urge you, however, to read the prospectus supplements related to the series of units being offered, as well as the unit agreements that contain the terms of the units. We will file as exhibits to the registration statement of which this prospectus is a part, or will incorporate by reference from a Current Report on Form 8-K that we file with the Securities and Exchange Commission, the form of unit agreement and any supplemental agreements that describe the terms of the series of units we are offering before the issuance of the related series of units.

We will evidence each series of units by unit certificates that we will issue under a separate agreement. We will enter into the unit agreements with a unit agent. Each unit agent will be a bank or trust company that we select. We will indicate the name and address of the unit agent in the applicable prospectus supplement relating to a particular series of units.

USE OF PROCEEDS

Except as described in any prospectus supplement, we currently intend to use the net proceeds from the sale of the securities offered hereby to finance our growth plans including:

- expanding to meet the demands resulting from the expected MACT regulations; and
- for general working capital purposes.

Pending these uses, we will likely invest the net proceeds in investment-grade, interest-bearing securities.

DESCRIPTION OF CAPITAL STOCK

ADES is incorporated in the State of Delaware. The rights of stockholders of ADES will generally be governed by Delaware law and ADES's Second Amended and Restated Certificate of Incorporation (the "ADES Certificate") and bylaws. The following description of our capital stock and certain provisions of the ADES Certificate is a summary and is qualified in its entirety by the provisions of the ADES Certificate.

The authorized capital of ADES is 150,000,000 shares, consisting of 100,000,000 shares of common stock, par value \$0.001 per share, and 50,000,000 shares of preferred stock, par value \$0.001 per share. As of July 1, 2013, there were 10,097,272 shares of common stock outstanding and no shares of preferred stock outstanding. All shares of ADES issued and outstanding are, and all shares of ADES to be issued under this prospectus will be, fully paid and nonassessable.

Common Stock

Dividends and Distributions. Subject to preferences applicable to any shares of ADES preferred stock issued in the future, the holders of outstanding shares of ADES common stock are entitled to receive dividends and other distributions out of assets legally available at times and in amounts as the board of directors of ADES may determine from time to time. All shares of ADES common stock are entitled to participate ratably with respect to dividends or other distributions.

Liquidation Rights. If ADES is voluntarily or involuntarily liquidated, dissolved or wound up holders of ADES common stock are entitled to share ratably in all assets of ADES available for distribution to the ADES stockholders after the payment in full of any preferential amounts to which holders of any ADES preferred stock issued in the future may be entitled.

Voting Rights. Holders of ADES common stock are entitled to one vote per share on all matters to be voted upon by stockholders. There are no cumulative voting rights. Stockholders may vote by proxy.

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Other . There are no preemption, redemption, sinking fund or conversion rights applicable to ADES common stock.

Preferred Stock

The Board of Directors of ADES may, without further stockholder approval, issue up to 50,000,000 shares of preferred stock in one or more series and fix the number of shares constituting the designation, voting powers (if any), preferences and other rights, as well as the qualifications, limitations and restrictions, of the series. The powers, preferences and rights, and the qualifications, limitations or restrictions, if any, of each series of preferred stock may be different from those of any and all other series. The issuance of ADES preferred stock may have the effect of delaying, deferring or preventing a change of control of ADES without further action by the stockholders, may discourage bids for ADES common stock at a premium over the market price of ADES common stock and may adversely affect the market price of, and the voting and other rights of the holders of, ADES common stock.

We will fix the rights, preferences, privileges and restrictions of the preferred stock of each series in the certificate of designation relating to that series. We will incorporate by reference as an exhibit to the registration statement that includes this prospectus or as an exhibit to a Current Report on Form 8-K, the form of any certificate of designation that describes the terms of the series of preferred stock we are offering before the issuance of the related series of preferred stock. This description will include:

- the title and stated value;
- the number of shares we are offering;
- the liquidation preference per share;
- the purchase price;
- the dividend rate, period and payment date and method of calculation for dividends;
- whether dividends will be cumulative or non-cumulative and, if cumulative, the date from which dividends will accumulate;
- the procedures for any auction and remarketing, if any;
- the provisions for a sinking fund, if any;
- the provisions for redemption or repurchase, if applicable, and any restrictions on our ability to exercise those redemption and repurchase rights;
- any listing of the preferred stock on any securities exchange or market;
- whether the preferred stock will be convertible into our common stock, and, if applicable, the conversion price, or how it will be calculated, and the conversion period;
- voting rights, if any, of the preferred stock;
- preemption rights, if any;
- restrictions on transfer, sale or other assignment, if any;
- a discussion of any material or special United States federal income tax considerations applicable to the preferred stock;

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- the relative ranking and preferences of the preferred stock as to dividend rights and rights if we liquidate, dissolve or wind up our affairs;
- any limitations on issuance of any class or series of preferred stock ranking senior to or on a parity with the series of preferred stock as to dividend rights and rights if we liquidate, dissolve or wind up our affairs; and
- any other specific terms, preferences, rights or limitations of, or restrictions on, the preferred stock.

If we issue shares of preferred stock under this prospectus, the shares will not have, or be subject to, any preemptive or similar rights.

Transfer Agent and Registrar

Computershare Investor Services has been appointed as the transfer agent and registrar for our common stock. It is located at 350 Indiana Street, Suite 750, Golden, Colorado 80401, telephone (303) 262-0600.

DESCRIPTION OF WARRANTS

The following description, together with the additional information we may include in any applicable prospectus supplements, summarizes the material terms and provisions of the warrants that we may offer under this prospectus and the related warrant agreements and warrant certificates. While the terms summarized below will apply generally to any warrants that we may offer, we will describe the particular terms of any series of warrants in more detail in the applicable prospectus supplement. If we so indicate in the prospectus supplement, the terms of any warrants offered under that prospectus supplement may differ from the terms described below. However, no prospectus supplement shall fundamentally change the terms that are set forth in this prospectus or offer a security that is not registered and described in this prospectus at the time of its effectiveness. Specific warrant agreements will contain additional important terms and provisions and will be incorporated by reference as an exhibit to the registration statement that includes this prospectus or as an exhibit to a Current Report on Form 8-K.

General

We will describe in the applicable prospectus supplement the terms of the series of warrants, including:

- the offering price and aggregate number of warrants offered;
- the currency for which the warrants may be purchased;
- if applicable, the designation and terms of the securities with which the warrants are issued and the number of warrants issued with each such security or each principal amount of such security;
- if applicable, the date on and after which the warrants and the related securities will be separately transferable;
- in the case of warrants to purchase common stock or preferred stock, the number of shares of common stock or preferred stock, as the case may be, purchasable upon the exercise of one warrant and the price at which these shares may be purchased upon such exercise;
- the effect of any merger, consolidation, sale or other disposition of our business on the warrant agreements and the warrants;

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- the terms of any rights to redeem or call the warrants;
- any provisions for changes to or adjustments in the exercise price or number of securities issuable upon exercise of the warrants;
- the dates on which the right to exercise the warrants will commence and expire;
- the manner in which the warrant agreements and warrants may be modified;
- federal income tax consequences of holding or exercising the warrants;
- the terms of the securities issuable upon exercise of the warrants; and
- any other specific terms, preferences, rights or limitations of or restrictions on the warrants.

Holders of warrants will not have any of the rights of holders of the securities purchasable upon exercise of their warrants prior to such exercise, including in the case of warrants to purchase common stock or preferred stock, the right to receive dividends, if any, or, payments upon our liquidation, dissolution or winding up or to exercise voting rights, if any.

Exercise of Warrants

Each warrant will entitle the holder to purchase the securities that we specify in the applicable prospectus supplement at the exercise price that we describe in the applicable prospectus supplement. Unless we otherwise specify in the applicable prospectus supplement, holders of the warrants may exercise the warrants at any time up to 5:00 p.m. Eastern Time on the expiration date that we set forth in the applicable prospectus supplement. After the close of business on the expiration date, unexercised warrants will become void.

Holders of the warrants may exercise the warrants by delivering the warrant certificate representing the warrants to be exercised together with specified information and paying the required amount to the warrant agent in immediately available funds, as provided in the applicable prospectus supplement. We will set forth on the reverse side of the warrant certificate and in the applicable prospectus supplement the information that the holder of the warrant will be required to deliver to the warrant agent.

Upon receipt of the required payment and the warrant certificate properly completed and duly executed at the corporate trust office of the warrant agent or any other office indicated in the applicable prospectus supplement, we will issue and deliver the securities purchasable upon such exercise. If fewer than all of the warrants represented by the warrant certificate are exercised, then we will issue a new warrant certificate for the remaining amount of warrants. If we so indicate in the applicable prospectus supplement, holders of the warrants may surrender securities as all or part of the exercise price for warrants.

Enforceability of Rights by Holders of Warrants

Each warrant agent will act solely as our agent under the applicable warrant agreement and will not assume any obligation or relationship of agency or trust with any holder of any warrant. A single bank or trust company may act as warrant agent for more than one issue of warrants. A warrant agent will have no duty or responsibility in case of any default by us under the applicable warrant agreement or warrant, including any duty or responsibility to initiate any proceedings at law or otherwise or to make any demand upon us. Any holder of a warrant may, without the consent of the related warrant agent or the holder of any other warrant, enforce by appropriate legal action its right to exercise, and receive the securities purchasable upon exercise of, its warrants.

DESCRIPTION OF UNITS

The following description, together with the additional information we may include in any applicable prospectus supplements, summarizes the material terms and provisions of the units that we may offer under this prospectus. While the terms we have summarized below will apply generally to any units that we may offer under

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this prospectus, we will describe the particular terms of any series of units in more detail in the applicable prospectus supplement. The terms of any units offered under a prospectus supplement may differ from the terms described below.

We will file as exhibits to the registration statement of which this prospectus is a part, or will incorporate by reference from a Current Report on Form 8-K that we file with the SEC, the form of unit agreement that describes the terms of the series of units we are offering and any supplemental agreements, before the issuance of the related series of units. The following summaries of material terms and provisions of the units are subject to, and qualified in their entirety by reference to, all the provisions of the unit agreement and any supplemental agreements applicable to a particular series of units. We urge you to read the applicable prospectus supplements related to the particular series of units that we sell under this prospectus as well as the complete unit agreement and any supplemental agreements that contain the terms of the units.

General

We may issue units comprised of shares of common stock, shares of preferred stock and warrants in any combination. Each unit will be issued so that the holder of the unit is also the holder of each security included in the unit. Thus, the holder of a unit will have the rights and obligations of a holder of each included security. The unit agreement under which a unit is issued may provide that the securities included in the unit may not be held or transferred separately, at any time or at any time before a specified date.

We will describe in the applicable prospectus supplement the terms of the series of units, including:

- the designation and terms of the units and of the securities comprising the units, including whether and under what circumstances those securities may be held or transferred separately;
- any provisions of the governing unit agreement that differ from those described below; and
- any provisions for the issuance, payment, settlement, transfer or exchange of the units or of the securities comprising the units.

The provisions described in this section, as well as those described under “Description of Capital Stock” and “Description of Warrants” will apply to each unit and to any common stock, preferred stock or warrant included in each unit, respectively.

Issuance in Series

We may issue units in such amounts and in such numerous distinct series as we determine.

Enforceability of Rights by Holders of Units

Each unit agent will act solely as our agent under the applicable unit agreement and will not assume any obligation or relationship of agency or trust with any holder of any unit. A single bank or trust company may act as unit agent for more than one series of units. A unit agent will have no duty or responsibility in case of any default by us under the applicable unit agreement or unit, including any duty or responsibility to initiate any proceedings at law or otherwise, or to make any demand upon us. Any holder of a unit may, without the consent of the related unit agent or the holder of any other unit, enforce by appropriate legal action its rights as holder under any security included in the unit.

Title

We, the unit agents and any of their agents may treat the registered holder of any unit certificate as an absolute owner of the units evidenced by that certificate for any purpose and as the person entitled to exercise the rights attaching to the units so requested, despite any notice to the contrary. See “Legal Ownership of Securities” below.

LEGAL OWNERSHIP OF SECURITIES

We may issue securities in registered form or in the form of one or more global securities. We describe global securities in greater detail below. We refer to those persons who have securities registered in their own names on the books that we or any applicable trustee, depository or warrant agent maintain for this purpose as the “holders” of those securities. These persons are the legal holders of the securities. We refer to those persons who, indirectly through others, own beneficial interests in securities that are not registered in their own names, as “indirect holders” of those securities. As we discuss below, indirect holders are not legal holders, and investors in securities issued in book-entry form or in street name will be indirect holders.

Book-Entry Holders

We may issue securities in book-entry form only, as we will specify in the applicable prospectus supplement. This means securities may be represented by one or more global securities registered in the name of a financial institution that holds them as depository on behalf of other financial institutions that participate in the depository’s book-entry system. These participating institutions, which are referred to as participants, in turn, hold beneficial interests in the securities on behalf of themselves or their customers.

Only the person in whose name a security is registered is recognized as the holder of that security. Securities issued in global form will be registered in the name of the depository or its participants. Consequently, for securities issued in global form, we will recognize only the depository as the holder of the securities, and we will make all payments on the securities to the depository. The depository passes along the payments it receives to its participants, which in turn pass the payments along to their customers who are the beneficial owners. The depository and its participants do so under agreements they have made with one another or with their customers; they are not obligated to do so under the terms of the securities.

As a result, investors in a book-entry security will not own securities directly. Instead, they will own beneficial interests in a global security, through a bank, broker or other financial institution that participates in the depository’s book-entry system or holds an interest through a participant. As long as the securities are issued in global form, investors will be indirect holders, and not holders, of the securities.

Street Name Holders

We may terminate a global security or issue securities in non-global form. In these cases, investors may choose to hold their securities in their own names or in “street name.” Securities held by an investor in street name would be registered in the name of a bank, broker or other financial institution that the investor chooses, and the investor would hold only a beneficial interest in those securities through an account he or she maintains at that institution.

For securities held in street name, we will recognize only the intermediary banks, brokers and other financial institutions in whose names the securities are registered as the holders of those securities, and we will make all payments on those securities to them. These institutions pass along the payments they receive to their customers who are the beneficial owners, but only because they agree to do so in their customer agreements or because they are legally required to do so. Investors who hold securities in street name will be indirect holders, not holders, of those securities.

Legal Holders

Our obligations, as well as the obligations of any applicable trustee and of any third parties employed by us or a trustee, run only to the legal holders of the securities. We do not have obligations to investors who hold beneficial interests in global securities, in street name or by any other indirect means. This will be the case whether an investor chooses to be an indirect holder of a security or has no choice because we are issuing the securities only in global form.

For example, once we make a payment or give a notice to the holder, we have no further responsibility for the payment or notice even if that holder is required, under agreements with depository participants or customers or by law, to pass it along to the indirect holders but does not do so. Similarly, we may want to obtain the approval of the holders to amend an indenture, to relieve us of the consequences of a default or of our obligation to comply with a

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particular provision of the indenture or for other purposes. In such an event, we would seek approval only from the holders, and not the indirect holders, of the securities. Whether and how the holders contact the indirect holders is up to the holders.

Special Considerations for Indirect Holders

If you hold securities through a bank, broker or other financial institution, either in book-entry form or in street name, you should check with your own institution to find out:

- how it handles securities payments and notices;
- whether it imposes fees or charges;
- how it would handle a request for the holders' consent, if ever required;
- whether and how you can instruct it to send you securities registered in your own name so you can be a holder, if that is permitted in the future;
- how it would exercise rights under the securities if there were a default or other event triggering the need for holders to act to protect their interests; and
- if the securities are in book-entry form, how the depository's rules and procedures will affect these matters.

Global Securities

A global security is a security that represents one or any other number of individual securities held by a depository. Generally, all securities represented by the same global securities will have the same terms.

Each security issued in book-entry form will be represented by a global security that we deposit with and register in the name of a financial institution or its nominee that we select. The financial institution that we select for this purpose is called the depository. Unless we specify otherwise in the applicable prospectus supplement, The Depository Trust Company, New York, New York, known as DTC, will be the depository for all securities issued in book-entry form.

A global security may not be transferred to or registered in the name of anyone other than the depository, its nominee or a successor depository, unless special termination situations arise. We describe those situations below under "Special Situations When a Global Security Will Be Terminated." As a result of these arrangements, the depository, or its nominee, will be the sole registered owner and holder of all securities represented by a global security, and investors will be permitted to own only beneficial interests in a global security. Beneficial interests must be held by means of an account with a broker, bank or other financial institution that in turn has an account with the depository or with another institution that does. Thus, an investor whose security is represented by a global security will not be a holder of the security, but only an indirect holder of a beneficial interest in the global security.

If the prospectus supplement for a particular security indicates that the security will be issued in global form only, then the security will be represented by a global security at all times unless and until the global security is terminated. If termination occurs, we may issue the securities through another book-entry clearing system or decide that the securities may no longer be held through any book-entry clearing system.

Special Considerations for Global Securities

As an indirect holder, an investor's rights relating to a global security will be governed by the account rules of the investor's financial institution and of the depository, as well as general laws relating to securities transfers. We do not recognize an indirect holder as a holder of securities and instead deal only with the depository that holds the global security.

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If securities are issued only in the form of a global security, an investor should be aware of the following:

- An investor cannot cause the securities to be registered in his or her name and cannot obtain non-global certificates for his or her interest in the securities, except in the special situations we describe below;
- An investor will be an indirect holder and must look to his or her own bank or broker for payments on the securities and protection of his or her legal rights relating to the securities, as we describe above;
- An investor may not be able to sell interests in the securities to some insurance companies and to other institutions that are required by law to own their securities in non-book-entry form;
- An investor may not be able to pledge his or her interest in a global security in circumstances where certificates representing the securities must be delivered to the lender or other beneficiary of the pledge in order for the pledge to be effective;
- The depositary's policies, which may change from time to time, will govern payments, transfers, exchanges and other matters relating to an investor's interest in a global security. We and any applicable trustee have no responsibility for any aspect of the depositary's actions or for its records of ownership interests in a global security. We and the trustee also do not supervise the depositary in any way;
- The depositary may, and we understand that DTC will, require that those who purchase and sell interests in a global security within its book-entry system use immediately available funds, and your broker or bank may require you to do so as well; and
- Financial institutions that participate in the depositary's book-entry system, and through which an investor holds its interest in a global security, may also have their own policies affecting payments, notices and other matters relating to the securities.

There may be more than one financial intermediary in the chain of ownership for an investor. We do not monitor and are not responsible for the actions of any of those intermediaries.

Special Situations When a Global Security Will Be Terminated

In a few special situations described below, the global security will terminate and interests in it will be exchanged for physical certificates representing those interests. After that exchange, the choice of whether to hold securities directly or in street name will be up to the investor. Investors must consult their own banks or brokers to find out how to have their interests in securities transferred to their own name, so that they will be direct holders. We have described the rights of holders and street name investors above.

The global security will terminate if one of the following special situations occurs:

- if the depositary notifies us that it is unwilling, unable or no longer qualified to continue as depositary for that global security and we do not appoint another institution to act as depositary within 90 days;
- if we notify any applicable trustee that we wish to terminate that global security; or
- if an event of default has occurred with regard to securities represented by that global security and has not been cured or waived.

The prospectus supplement may also list additional situations for terminating a global security that would apply only to the particular series of securities covered by the prospectus supplement. When a global security terminates, the depositary, and not we or any applicable trustee, is responsible for deciding the names of the institutions that will be the initial direct holders.

PLAN OF DISTRIBUTION

We may sell the securities offered by this prospectus in one or more of the following ways from time to time:

- to or through underwriters or dealers; or
- directly to purchasers, including our affiliates, or to a single purchaser.
- one or more agents;
- a block trade in which the broker or dealer engaged to handle the block will attempt to sell the securities as agent, but may position and resell a portion of the block as principal to facilitate the transaction; or
- through a combination of any of these methods of sale.

In addition, we may issue the securities being offered by this prospectus as a dividend or distribution.

We may effect the distribution of the securities from time to time in one or more transactions at a fixed price or prices, which may be changed from time to time, at market prices prevailing at the time of sale, at prices related to prevailing market prices or at negotiated prices.

We will set forth in a prospectus supplement the terms of the offering of our securities, including:

- the type and amount of securities we are offering;
- the purchase price of our securities being offered and the net proceeds we will receive from the sale;
- the method of distribution of the securities we are offering;
- the name or names of any agents, underwriters or dealers;
- any over-allotment options under which underwriters may purchase additional securities from us;
- any underwriting discounts and commissions or agency fees and commissions and other items constituting underwriters' or agents' compensation;
- any discounts or concessions allowed or reallocated or paid to dealers; and
- any securities exchanges on which such securities may be listed.

Sale Through Underwriters or Dealers

If we use an underwriter or underwriters in the sale of securities offered by this prospectus, the underwriters will acquire the securities for their own account, including through underwriting, purchase, security lending or repurchase agreements with us. The underwriters may resell the securities from time to time in one or more transactions, including negotiated transactions. Underwriters may sell the securities in order to facilitate transactions in any of our other securities (described in this prospectus or otherwise), including other public or private transactions and short sales. Underwriters may offer securities to the public either through underwriting syndicates represented by one or more managing underwriters or directly by one or more firms acting as underwriters. Unless otherwise indicated in the prospectus supplement, the obligations of the underwriters to purchase the securities will be subject to certain conditions, and the underwriters will be obligated to purchase all the offered securities if they purchase any of them. The underwriters may change from time to time any public offering price and any discounts or concessions allowed or reallocated or paid to dealers.

If we use an underwriter or underwriters in the sale of securities, we will execute an underwriting agreement with the underwriter or underwriters at the time we reach an agreement for sale. We will set forth in the applicable

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prospectus supplement the names of the specific managing underwriter or underwriters, as well as any other underwriters, and the terms of the transactions, including compensation of the underwriters and dealers. This compensation may be in the form of discounts, concessions or commissions.

In compliance with the guidelines of the Financial Industry Regulatory Authority, or FINRA, the aggregate maximum discount, commission, agency fees, or other items constituting underwriting compensation to be received by any FINRA member or independent broker-dealer will not exceed 8% of any offering pursuant to this prospectus and any applicable prospectus supplement; however, we anticipate that the maximum commission or discount to be received in any particular offering of securities will be significantly less than this amount.

No FINRA member may participate in any offering of securities made under this prospectus if such member has a conflict of interest under FINRA Rule 2720, including if 5% or more of the net proceeds, not including underwriting compensation, of any offering of securities made under this prospectus will be received by a FINRA member participating in the offering or affiliates or associated persons of such FINRA members, unless a qualified independent underwriter has participated in the offering or the offering otherwise complies with FINRA Rule 2720.

We may grant to the underwriters options to purchase additional securities to cover over-allotments, if any, at the public offering price with additional underwriting discounts or commissions. If we grant any over-allotment option, the terms of any over-allotment option will be set forth in the prospectus supplement relating to those securities.

Sale Through Dealers

If we use dealers in the sale of the securities offered by this prospectus, we or an underwriter will sell the securities to them as principals. The dealers may then resell those securities to the public at varying prices to be determined by the dealers at the time of resale. The applicable prospectus supplement will set forth the names of the dealers and the terms of the transactions.

Direct Sales

We may directly solicit offers to purchase the securities offered by this prospectus. In this case, no underwriters or agents would be involved. We may sell the securities directly to institutional investors or others who may be deemed to be underwriters within the meaning of the Securities Act with respect to any sale of those securities. The terms of any such sales will be described in the prospectus supplement.

Sales Through Agents

Securities also may be offered and sold through agents designated from time to time. The prospectus supplement will name any agent involved in the offer or sale of the securities and will describe any commissions payable to the agent. Unless otherwise indicated in the applicable prospectus supplement, any agent will agree to use its reasonable best efforts to solicit purchases for the period of its appointment. Any agent may be deemed to be an underwriter within the meaning of the Securities Act with respect to any sale of those securities.

Delayed Delivery Contracts

If the applicable prospectus supplement indicates, we may authorize agents, underwriters or dealers to solicit offers from institutions to purchase securities at the public offering price under delayed delivery contracts. These contracts would provide for payment and delivery on a specified date in the future. Institutions with which contracts of this type may be made include commercial and savings banks, insurance companies, pension funds, investment companies, educational and charitable institutions, but in all cases those institutions must be approved by us. The obligations of any purchaser under any contract of this type will be subject to the condition that the purchase of the securities shall not at the time of delivery be prohibited under the laws of the jurisdiction to which the purchaser is subject. The applicable prospectus supplement will describe the commission payable for solicitation of those contracts.

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Market Making, Stabilization and Other Transactions

Our common stock is listed on the NASDAQ Capital Market. Any common stock sold pursuant to a prospectus supplement will be eligible for listing and trading on the NASDAQ Capital Market, subject to official notice of issuance. Unless the applicable prospectus supplement states otherwise, each other class or series of securities issued will be a new issue and will have no established trading market. We may elect to list any other class or series of securities on an exchange, but we are not currently obligated to do so. Any underwriters that we use in the sale of offered securities may make a market in such securities, but may discontinue such market making at any time without notice. Therefore, we cannot assure you that the securities will have a liquid trading market.

Any underwriter may also engage in stabilizing transactions, syndicate covering transactions and penalty bids in accordance with Regulation M under the Exchange Act. Stabilizing transactions involve bids to purchase the underlying security in the open market for the purpose of pegging, fixing or maintaining the price of the securities. Syndicate covering transactions involve purchases of the securities in the open market after the distribution has been completed in order to cover syndicate short positions.

Penalty bids permit the underwriters to reclaim a selling concession from a syndicate member when the securities originally sold by the syndicate member are purchased in a syndicate covering transaction to cover syndicate short positions. Stabilizing transactions, syndicate covering transactions and penalty bids may cause the price of the securities to be higher than it would be in the absence of the transactions. The underwriters may, if they commence these transactions, discontinue them at any time.

The effect of these transactions may be to stabilize or maintain the market price of the securities at a level above that which might otherwise prevail in the open market. Such transactions, if commenced, may be discontinued at any time. We make no representation or prediction as to the direction or magnitude of any effect that the transactions described above, if implemented, may have on the price of our securities.

Derivative Transactions and Hedging

We, the underwriters or other agents may engage in derivative transactions involving the securities. These derivatives may consist of short sale transactions and other hedging activities. The underwriters or agents may acquire a long or short position in the securities, hold or resell securities acquired and purchase options or futures on the securities and other derivative instruments with returns linked to or related to changes in the price of the securities. In order to facilitate these derivative transactions, we may enter into security lending or repurchase agreements with the underwriters or agents. The underwriters or agents may effect the derivative transactions through sales of the securities to the public, including short sales, or by lending the securities in order to facilitate short sale transactions by others. The underwriters or agents may also use the securities purchased or borrowed from us or others (or, in the case of derivatives, securities received from us in settlement of those derivatives) to directly or indirectly settle sales of the securities or close out any related open borrowings of the securities.

Electronic Auctions

We also may make sales through the Internet or through other electronic means. Since we may from time to time elect to offer securities directly to the public, with or without the involvement of agents, underwriters or dealers, utilizing the Internet or other forms of electronic bidding or ordering systems for the pricing and allocation of such securities, you will want to pay particular attention to the description of that system we will provide in a prospectus supplement.

Such electronic system may allow bidders to directly participate, through electronic access to an auction site, by submitting conditional offers to buy that are subject to acceptance by us, and which may directly affect the price or other terms and conditions at which such securities are sold. These bidding or ordering systems may present to each bidder, on a so-called "real-time" basis, relevant information to assist in making a bid, such as the clearing spread at which the offering would be sold, based on the bids submitted, and whether a bidder's individual bids would be accepted, prorated or rejected. Of course, many pricing methods can and may also be used.

Upon completion of such an electronic auction process, securities will be allocated based on prices bid, terms of bid or other factors. The final offering price at which securities would be sold and the allocation of securities among bidders would be based in whole or in part on the results of the Internet or other electronic bidding process or auction.

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General Information

Agents, underwriters, and dealers may be entitled, under agreements entered into with us, to indemnification by us against specified liabilities, including liabilities under the Securities Act, or to contribution by us to payments they may be required to make in respect to such liabilities. The applicable prospectus supplement will describe the terms and conditions of indemnification or contribution. Some of our agents, underwriters, and dealers, or their affiliates, may be customers of, engage in transactions with or perform services for us, in the ordinary course of business. We will describe in the prospectus supplement the nature of any such relationship and the name of the parties involved. Any lockup arrangements will be set forth in the applicable prospectus supplement.

LEGAL MATTERS

The validity of the offered securities and other matters in connection with any offering of the securities will be passed upon for us by Fortis Law Partners LLC, Denver, Colorado. Any underwriters will also be advised about the validity of the securities and other legal matters by their own counsel, which will be named in the prospectus supplement.

EXPERTS

The consolidated financial statements of ADA as of and for the three fiscal years ended December 31, 2012 appearing in our Annual Reports on Form 10-K for such years have been audited by EKS&H LLLP, an independent registered public accounting firm, as set forth in their reports thereon, included therein, and incorporated herein by reference. Such consolidated financial statements are incorporated herein by reference in reliance upon such reports given on the authority of such firms as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We file reports, proxy statements and other documents with the SEC. You may read and copy any document we file at the SEC's public reference room at 100 F Street NE, Room 1580, Washington, D.C. 20549. You should call 1-800-SEC-0330 for more information on the public reference room. Our SEC filings are also available to you on the SEC's Internet site at www.sec.gov.

This prospectus is part of a registration statement that we filed with the SEC. The registration statement contains more information than this prospectus regarding us and our common stock, including certain exhibits and schedules. You can obtain a copy of the registration statement from the SEC at the address listed above or from the SEC's website.

Our Common Stock is currently traded in the over-the-counter market and is quoted on the NASDAQ Capital Market. Reports, proxy statements and other information filed by the Company therewith can be inspected at the National Association of Securities Dealers, Inc. 1735 K Street NW, Washington, D.C. 20006.

Information about us, including our SEC filings, is also available at our Internet site at <http://www.adaes.com>. However, the information on our Internet site is not a part of this prospectus or any accompanying prospectus supplement.

INFORMATION INCORPORATED BY REFERENCE

The SEC requires us to "incorporate" into this prospectus information that we file with the SEC in other documents. This means that we can disclose important information to you by referring to other documents that contain that information. The information incorporated by reference is considered to be part of this prospectus. Information contained in this prospectus and information that we file with the SEC in the future and incorporate by reference in this prospectus automatically updates and supersedes previously filed information. We incorporate by reference the documents listed below and any future filings we make with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of this prospectus and prior to the termination of this offering.

- ADA's Annual Report on Form 10-K for the fiscal year ended December 31, 2012, filed with the SEC on March 18, 2013 (File No. 000-50216);

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- The information specifically incorporated by reference into ADA's Annual Report from our Definitive Proxy Statement on Schedule 14A, filed with the SEC on April 25, 2013 (File No. 000-50216);
- ADA's Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 2013, filed with the SEC on May 10, 2013 (File No. 000-50216);
- ADA's Current Reports on Form 8-K, filed with the SEC February 11, 2013, March 13, 2013, March 22, 2013, March 25, 2013, June 14, 2013 and July 1, 2013 (excluding information furnished under Items 2.02, 7.01, and 9.01) (File No. 000-50216);
- any other filings we make pursuant to the Exchange Act after the date of filing this amendment to the registration statement and prior to effectiveness of the registration statement; and
- The description of our common stock contained in our Registration Statement on Form S-4 filed with the SEC on March 25, 2013, as amended and declared effective by the SEC.

Notwithstanding the foregoing, unless specifically stated otherwise, none of the information that we disclose under Items 2.02, 7.01 and 9.01 of any Current Report on Form 8-K that may be listed above or that we furnish from time to time to the SEC will be incorporated by reference into, or otherwise included in, this prospectus.

You may request a copy of these documents, which will be provided to you at no cost, by writing or telephoning us using the following contact information:

Mark McKinnies
Secretary of ADA-ES
9135 South Ridgeline Boulevard, Suite 200,
Highlands Ranch, Colorado 80129
(303) 734-1727
E-mail: mark.mckinnies@adaes.com

Exhibits to the filings will not be sent, however, unless those exhibits have specifically been incorporated by reference in this document.

PART II
INFORMATION NOT REQUIRED IN THE PROSPECTUS

Item 14. Other Expenses of Issuance and Distribution

The following table sets forth the estimated costs and expenses, other than the underwriting discounts and commissions, payable by the registrant in connection with the offering of the securities being registered. All the amounts shown are estimates, except for the registration fee.

SEC registration fee	\$16,254.00
Accounting fees and expenses	\$25,000.00
Legal fees and expenses	\$40,000.00
Printing and miscellaneous expenses	\$10,000.00
Total	\$91,254.00

Item 15. Indemnification of Officers and Directors

Limitation of Director Liability

The ADES Certificate provides, to the fullest extent permitted by Delaware law, that directors will not be liable to us or our stockholders for monetary damages for breach of fiduciary duty as a director. Delaware law currently provides that this waiver may not apply to liability:

- for any breach of the director’s duty of loyalty to us or our stockholders;
- for acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law;
- under Section 174 of the Delaware General Corporation Law (“DGCL”) (governing distributions to stockholders); or
- for any transaction from which the director derived any improper personal benefit.

If the DGCL is amended to authorize corporate action further eliminating or limiting the personal liability of directors, however, then the liability of our directors will be eliminated or limited to the fullest extent permitted by the DGCL, as so amended.

Indemnification of Directors, Officers and Others

The DGCL allows a corporation to indemnify its directors and officers, as well as other employees and individuals, against expenses (including attorneys’ fees), judgments, fines and amounts paid in settlement in connection with specified actions, suits or proceedings, whether civil, criminal, administrative or investigative (other than an action by or in the right of the corporation such as a derivative action) if the individuals acted in good faith and in a manner they reasonably believed to be in or not opposed to the best interests of the corporation and, with respect to any criminal action or proceeding, has no reasonable cause to believe their conduct was unlawful. Delaware law requires court approval before any indemnification where the person seeking indemnification has been found liable to the corporation

The ADES Certificate provides that we must, subject to certain limitations, indemnify, advance expenses, and hold harmless, to the fullest extent permitted by applicable law as it presently exists or may be amended, any person who was or is made or is threatened to be made a party or is otherwise involved in any action, suit or proceeding, whether civil, criminal, administrative or investigative, by reason of the fact that he or she, or a person for whom he or she is the legal representative, is or was a director or officer of ADES or, while a director or officer of ADES, is or was serving at the request of ADES as a director, officer, employee or agent of another business, against all liability and loss suffered and expenses (including attorneys’ fees) reasonably incurred by such person.

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The underwriting agreement, which is Exhibit 1.1 to this registration statement, may provide for indemnification by any of our underwriters, directors, officers who sign the registration statement and controlling persons for some liabilities, including liabilities arising under the Securities Act.

Item 16. Exhibits and Financial Statement Schedules

(a) Exhibits

INDEX TO EXHIBITS

Exhibit Number	Description of Document
1.1	Form of Underwriting Agreement. (1)
3.1	Second Amended and Restated Certificate of Incorporation of Advanced Emissions Solutions, Inc. (2)
3.2	Bylaws of Advanced Emissions Solutions, Inc. (3)
4.1	Specimen Common Stock Certificate. (4)
4.2	Specimen Preferred Stock Certificate and Form of Certificate of Designation of Preferred Stock. (1)
4.3	Form of Common Stock Warrant Agreement and Warrant Certificate. (1)
4.4	Form of Preferred Stock Warrant Agreement and Warrant Certificate. (1)
4.5	Form of Unit Agreement. (1)
5.1	Opinion of Fortis Law Partners LLC. (5)
23.1	Consent of Independent Registered Public Accounting Firm. (5)
23.2	Consent of Fortis Law Partners LLC (included in Exhibit 5.1).
24.1	Power of Attorney (6).

- (1) To be filed, if necessary, subsequent to the effectiveness of this registration statement by an amendment to this registration statement or incorporated by reference pursuant to a Current Report on Form 8-K in connection with an offering of securities.
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- (5) Filed herewith.
- (6) Included on the signature page.

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Item 17. Undertakings

- (a) The undersigned registrant hereby undertakes:
- (1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:
 - (i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;
 - (ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the SEC pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20 percent change in the maximum aggregate offering price set forth in the “Calculation of Registration Fee” table in the effective registration statement; and
 - (iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

provided, however, that paragraphs (a)(1)(i), (a)(1)(ii) and (a)(1)(iii) of this section do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the SEC by the registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.

- (2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.
- (3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.
- (4) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser:
 - (i) If the registrant is relying on Rule 430B,
 - (A) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and
 - (B) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5) or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii) or (x) for the purpose of providing the information required by Section 10(a) of the Securities Act of 1933 shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof. *Provided, however*, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to the effective date; or

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- (ii) If the registrant is subject to Rule 430C, each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectuses filed in reliance on Rule 430A, shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness. *Provided, however*, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.
- (5) That, for the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities, the undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer and sell such securities to such purchaser:
 - (i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;
 - (ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;
 - (iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and
 - (iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.
- (b) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.
- (c) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act of 1933 and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding), is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act of 1933 and will be governed by the final adjudication of such issue.
- (d) The undersigned registrant hereby undertakes that:
 - (1) For purposes of determining any liability under the Securities Act of 1933, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective.

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- (2) For the purpose of determining any liability under the Securities Act of 1933, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

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<u>/s/ Derek C. Johnson</u> Derek C. Johnson	Director	July 3, 2013
<u>/s/ W. Phillip Marcum</u> W. Phillip Marcum	Director	July 3, 2013
<u>/s/ Robert E. Shanklin</u> Robert E. Shanklin	Director	July 3, 2013
<u>/s/ Jeffrey C. Smith</u> Jeffrey C. Smith	Director	July 3, 2013
<u>/s/ Richard J. Swanson</u> Richard J. Swanson	Director	July 3, 2013

INDEX TO EXHIBITS

Exhibit Number	Description of Document
1.1	Form of Underwriting Agreement. (1)
3.1	Second Amended and Restated Certificate of Incorporation of Advanced Emissions Solutions, Inc. (2)
3.2	Bylaws of Advanced Emissions Solutions, Inc. (3)
4.1	Specimen Common Stock Certificate. (4)
4.2	Specimen Preferred Stock Certificate and Form of Certificate of Designation of Preferred Stock. (1)
4.3	Form of Common Stock Warrant Agreement and Warrant Certificate. (1)
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(6) Included on the signature page.



FORTIS
LAW
PARTNERS

July 3, 2013

Advanced Emissions Solutions, Inc.
9135 South Ridgeline Boulevard, Suite 200
Highlands Ranch, Colorado 80129

Re: Advanced Emissions Solutions, Inc.
Registration Statement on Form S-3
SEC File No. 333-171936

Ladies and Gentlemen:

We have acted as counsel to Advanced Emissions Solutions, Inc., a Delaware corporation (the "Company"). Pursuant to the consummation of the transactions contemplated by that certain Agreement and Plan of Merger, dated as of March 25, 2013 (the "Merger Agreement"), entered into by and among the Company, ADA-ES, Inc., a Colorado corporation ("ADA-ES"), and ADA Merger Corp., a Colorado corporation and a wholly owned subsidiary of the Company ("MergerCo"), MergerCo merged with and into ADA-ES (the "Merger"), ADA-ES became a wholly owned subsidiary of the Company with each share of common stock, no par value, of ADA-ES that was issued and outstanding at the time of the merger converted into one share of common stock, par value \$0.001, of the Company, and each share of common stock of MergerCo becoming a share of ADA-ES.

ADA-ES filed the Registration Statement on Form S-3, Securities and Exchange Commission ("SEC") File No. 333-171936, with the SEC on January 28, 2011 (the "Original Registration Statement"). ADA-ES subsequently filed Pre-Effective Amendments Nos. 1 and 2 to the Original Registration Statement on September 13, 2011, and October 6, 2011, respectively (these amendments, together with the Original Registration Statement, the "Registration Statement") and the Registration Statement was declared effective by the SEC on October 12, 2011. The Company succeeded to the obligations of ADA-ES as a result of the Merger, and by filing Post-Effective Amendment No. 1 to the Registration Statement is expressly adopting the Registration Statement.

The Company has requested our opinion as to the sale under the Registration Statement, as amended by Post-Effective Amendment No. 1, pursuant to the Securities Act of 1933, as amended (the "Act"), of up to \$140,000,000 in the aggregate amount of one or more series of (i) shares of common stock (the "Common Stock"), (ii) shares of preferred stock (the "Preferred Stock"), (iii) warrants to purchase Common Stock and Preferred Stock (the "Warrants"), or (iv) units of Common Stock, Preferred Stock and Warrants for the purchase of Common Stock and Preferred Stock in one or more series (the "Units" and, together with the Warrants, the Preferred Stock and the Common Stock, the "Securities"), all of which Securities may be offered and sold by the Company from time to time as set forth in the prospectus which forms a part of the Registration Statement (the "Prospectus"), and as to be set forth in one or more supplements to the Prospectus (each, a "Prospectus Supplement").

In connection with this opinion, we have assumed that the Registration Statement will remain effective and that any amendments thereto will have become effective and that such effectiveness shall not have been terminated or rescinded. We have also assumed that the issuance, sale, amount and terms of the Securities to be offered from time to time will be duly authorized and determined by proper action of the Board of Directors of the Company (each, a "Board Action") and in accordance with the Company's Second Amended and Restated Certificate of Incorporation (the "Certificate of Incorporation"), the Company's Bylaws (the "Bylaws") and applicable Delaware law. We also assume that that in connection with the issuance of shares, the Company will receive consideration in

an amount not less than the aggregate par value of the shares covered by each such issuance. We further assume that any Warrants will be issued under one or more warrant agreements (each, a "Warrant Agreement"), each to be between the Company and a financial institution identified therein as a warrant agent, if any (each, a "Warrant Agent").

In connection with this opinion, we have examined and relied upon such records, documents and other instruments as in our judgment are necessary or appropriate in order to express the opinions hereinafter set forth, including the Registration Statement, the Certificate of Incorporation, the Bylaws and the Merger Agreement, and have in addition (a) assumed (i) the genuineness of all signatures, (ii) the authenticity of all documents submitted to us as originals and (iii) the conformity to original documents of all documents submitted to us as certified or photostatic copies; and (b) relied on (i) representations, statements and certificates of public officials and others and (ii) as to matters of fact, statements, representations and certificates of officers and representatives of the Company.

In rendering the following opinion, we express no opinion as to the laws of any jurisdiction other than to (i) the corporate laws of the State of Delaware, including all applicable statutory provisions of the Delaware General Corporation Law, all rules and regulations underlying such statutory provisions of law, and all applicable judicial and regulatory determinations concerning such laws as reported in publicly available compilations of such judicial and regulatory determinations and (ii) the federal law of the United States to the extent specifically referred to herein. All opinions expressed are as of the date hereof except where expressly stated otherwise.

Based upon, subject to and limited by the foregoing, we are of the opinion that, as of the date hereof:

(1) Upon due authorization by Board Action of an issuance of Common Stock, and upon issuance and delivery of certificates for Common Stock against payment therefor in accordance with the terms of such Board Action, any applicable underwriting agreement and as contemplated by the Registration Statement and/or the applicable Prospectus Supplement, and, if issued upon the conversion, exchange or exercise of Warrants, when such shares have been duly issued and delivered as contemplated by the terms of the applicable Warrant Agreement, the shares represented by such certificates will be duly authorized and validly issued, fully paid and non-assessable by the Company.

(2) When a series of the Preferred Stock has been duly authorized and established by applicable Board Action, in accordance with the terms of the Certificate of Incorporation and applicable law, and, upon issuance and delivery of certificates for such series of Preferred Stock against payment therefor in accordance with the terms of such Board Action, any applicable underwriting agreement, and as contemplated by the Registration Statement and/or the applicable Prospectus Supplement, and, if issued upon the conversion, exchange or exercise of Warrants, when such shares have been duly issued and delivered as contemplated by the terms of the applicable Warrant Agreement, the shares represented by such certificates will be duly authorized and validly issued, fully paid and non-assessable by the Company.

(3) When the Warrants have been (a) duly established by the related Warrant Agreement, (b) duly authorized and established by applicable Board Action and duly authenticated by the Warrant Agent, and (c) duly executed and delivered on behalf of the Company against payment therefor in accordance with the terms of such Board Action, any applicable underwriting agreement, the applicable Warrant Agreement and as contemplated by the Registration Statement and/or the applicable Prospectus Supplement, the Warrants will be valid and binding obligations of the Company enforceable against the Company in accordance with their terms.

(4) When a series of Units consisting of Common Stock, Preferred Stock and Warrants, or any combination thereof, have been (a) duly authorized and established by applicable Board Action, (b) duly authenticated by the Warrant Agent, if applicable, and (c) duly executed and delivered on behalf of the Company against payment therefor in accordance with the terms of such Board Action, any applicable underwriting agreement, any applicable Warrant Agreement, in accordance with the terms of the Certificate of Incorporation and applicable law, upon issuance and delivery of certificates for the Common Stock, Preferred Stock and Warrants against payment therefor in accordance with the terms of such Board Action and as contemplated by the Registration Statement and/or the applicable Prospectus Supplement, the Units will be valid and binding obligations of the Company enforceable against the Company in accordance with their respective terms and any shares represented by such Common Stock and Preferred Stock certificates will be duly authorized and validly issued, fully paid and non-assessable by the Company.

To the extent that the obligations of the Company under any Warrant Agreement may be dependent on such matters, we assume for purposes of this opinion that the applicable Warrant Agent is duly organized, validly existing and in good standing under the laws of its jurisdiction of organization; that the Warrant Agent is duly qualified to engage in the activities contemplated by the Warrant Agreement; that the Warrant Agreement has been duly authorized, executed and delivered by the Warrant Agent and constitutes the legally valid and binding obligation of the Warrant Agent enforceable against the Warrant Agent in accordance with its terms; that the Warrant Agent is in compliance, with respect to acting as a Warrant Agent under the Warrant Agreement, with all applicable laws and regulations; and that the Warrant Agent has the requisite organizational and legal power and authority to perform its obligations under the Warrant Agreement.

We hereby consent to the filing of this opinion letter as Exhibit 5.1 to the Post-Effective Amendment No. 1 to the Registration Statement and further consent to the reference to this firm under the caption “Legal Matters” in the Prospectus. In giving the foregoing consent, we do not thereby admit that we are in the category of persons whose consent is required under Section 7 of the Act or the rules and regulations of the SEC thereunder.

Very truly yours,

/s/ Fortis Law Partners LLC
Fortis Law Partners LLC

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in this Post-Effective Amendment No. 1 to the Registration Statement on Form S-3 of our report dated March 18, 2013, relating to the consolidated financial statements of ADA-ES, Inc. and Subsidiaries as of December 31, 2012, 2011, and 2010 and for the years then ended. We also consent to the reference to us under the heading "Experts" in this Registration Statement.

/s/ EKS&H LLLP

EKS&H LLLP

July 3, 2013
Denver, Colorado